CONFIRMATION COPY

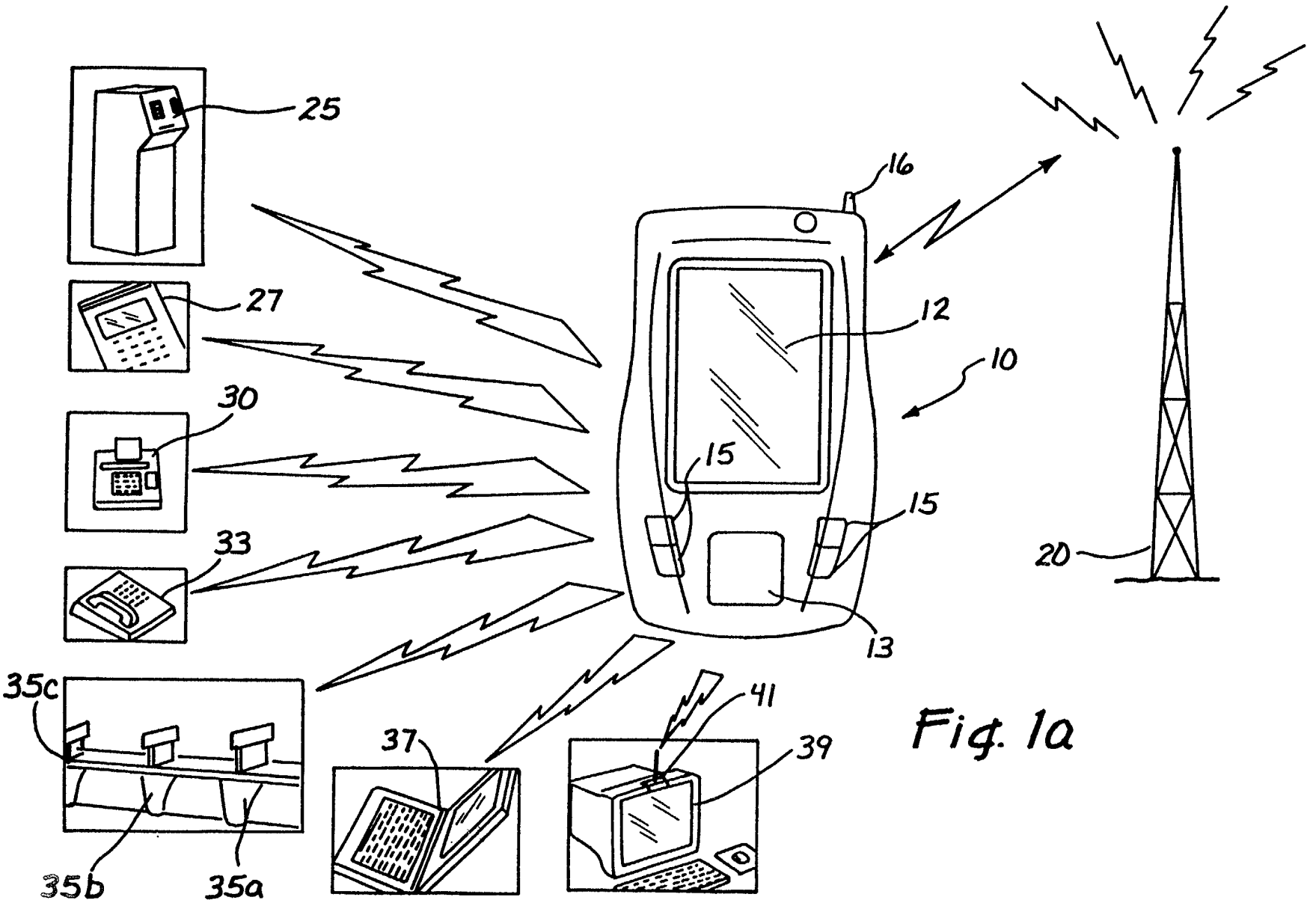


Fig. 1a

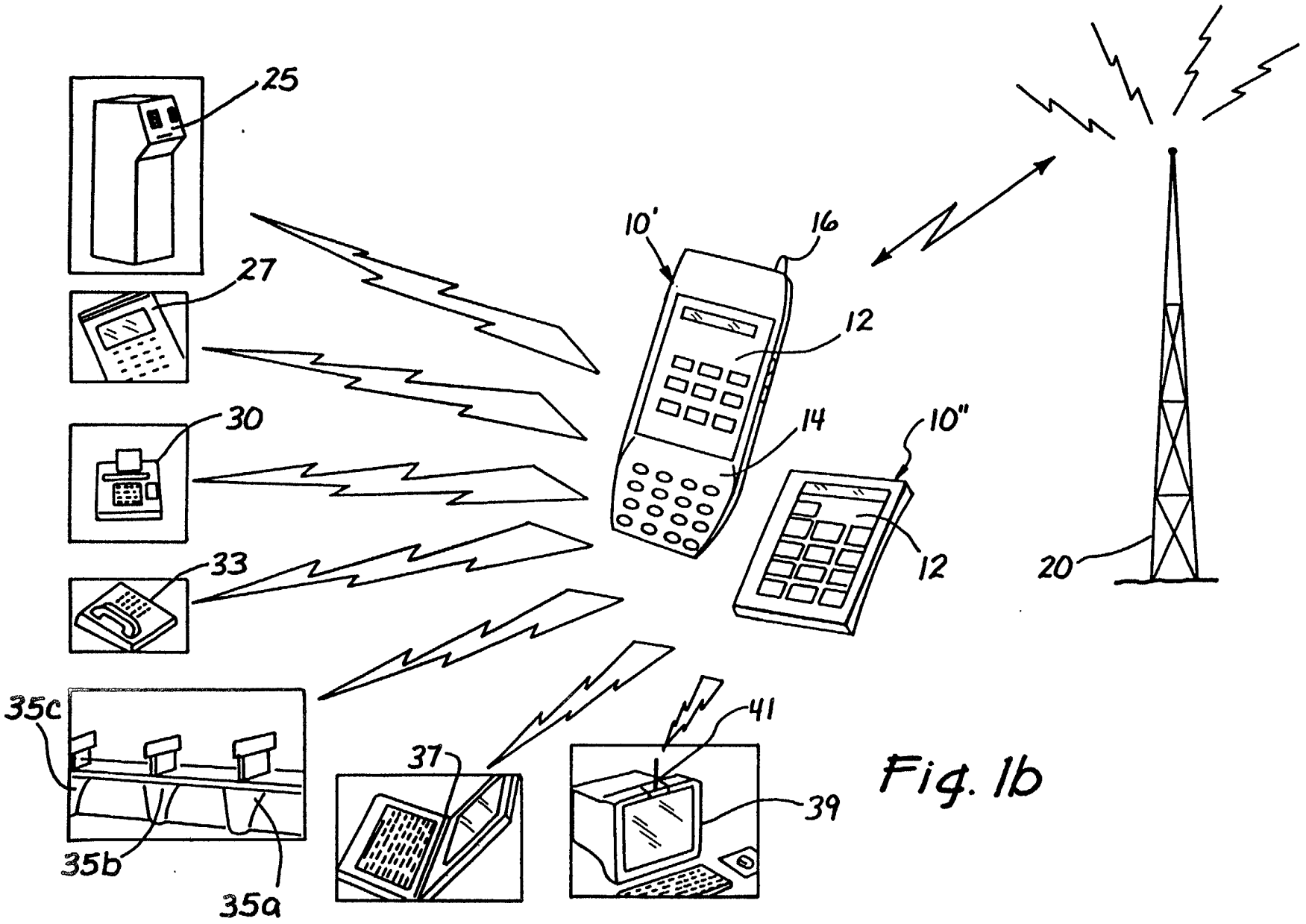
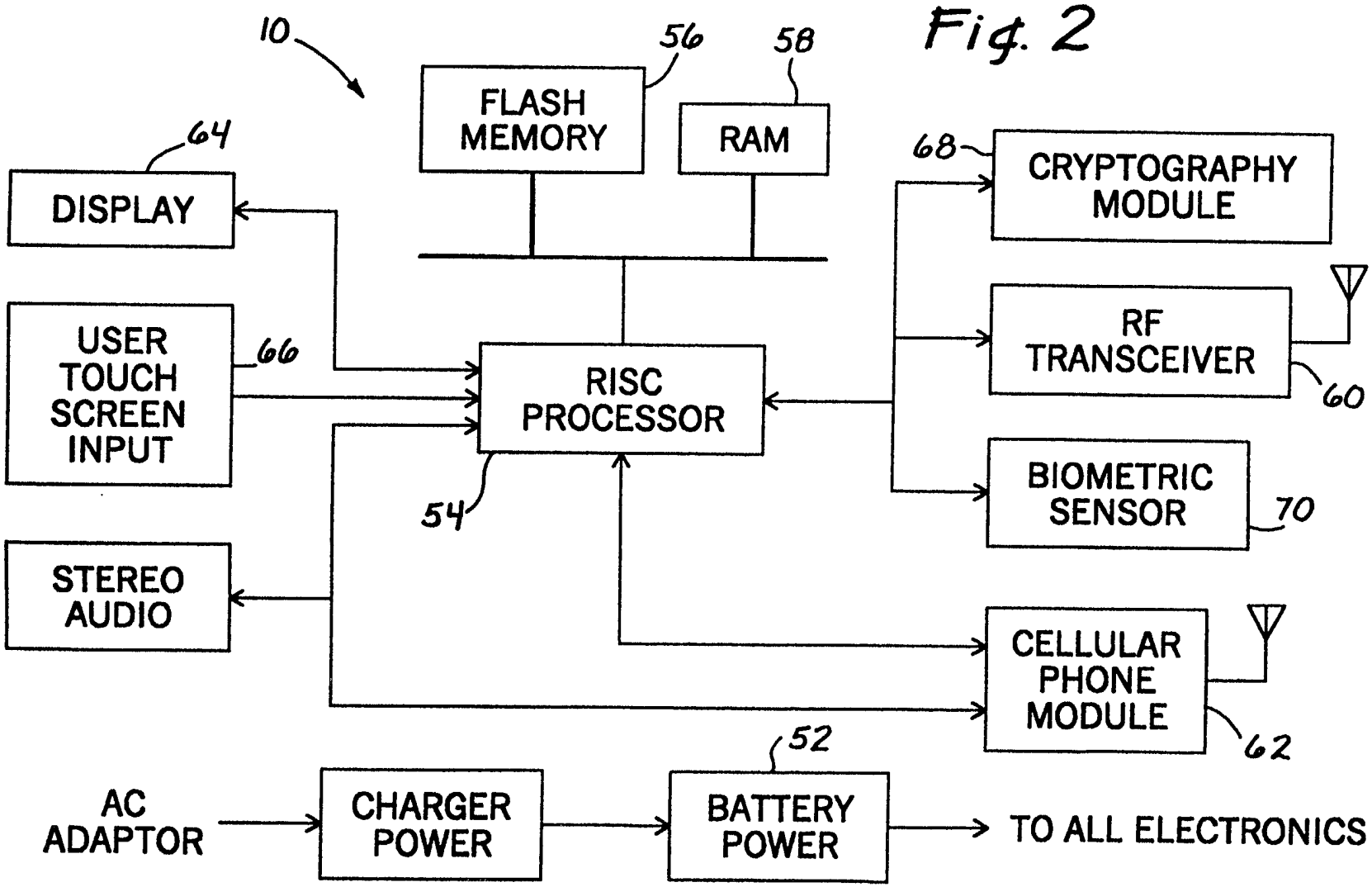


Fig. 1b

Fig. 2


10
56
58
FLASH MEMORY
RAM
64
DISPLAY
68
CRYPTOGRAPHY MODULE
USER TOUCH SCREEN INPUT
66
RISC PROCESSOR
RF TRANSCEIVER
60
54
BIOMETRIC SENSOR
70
STEREO AUDIO
CELLULAR PHONE MODULE
62
52
AC ADAPTOR
CHARGER POWER
BATTERY POWER
TO ALL ELECTRONICS

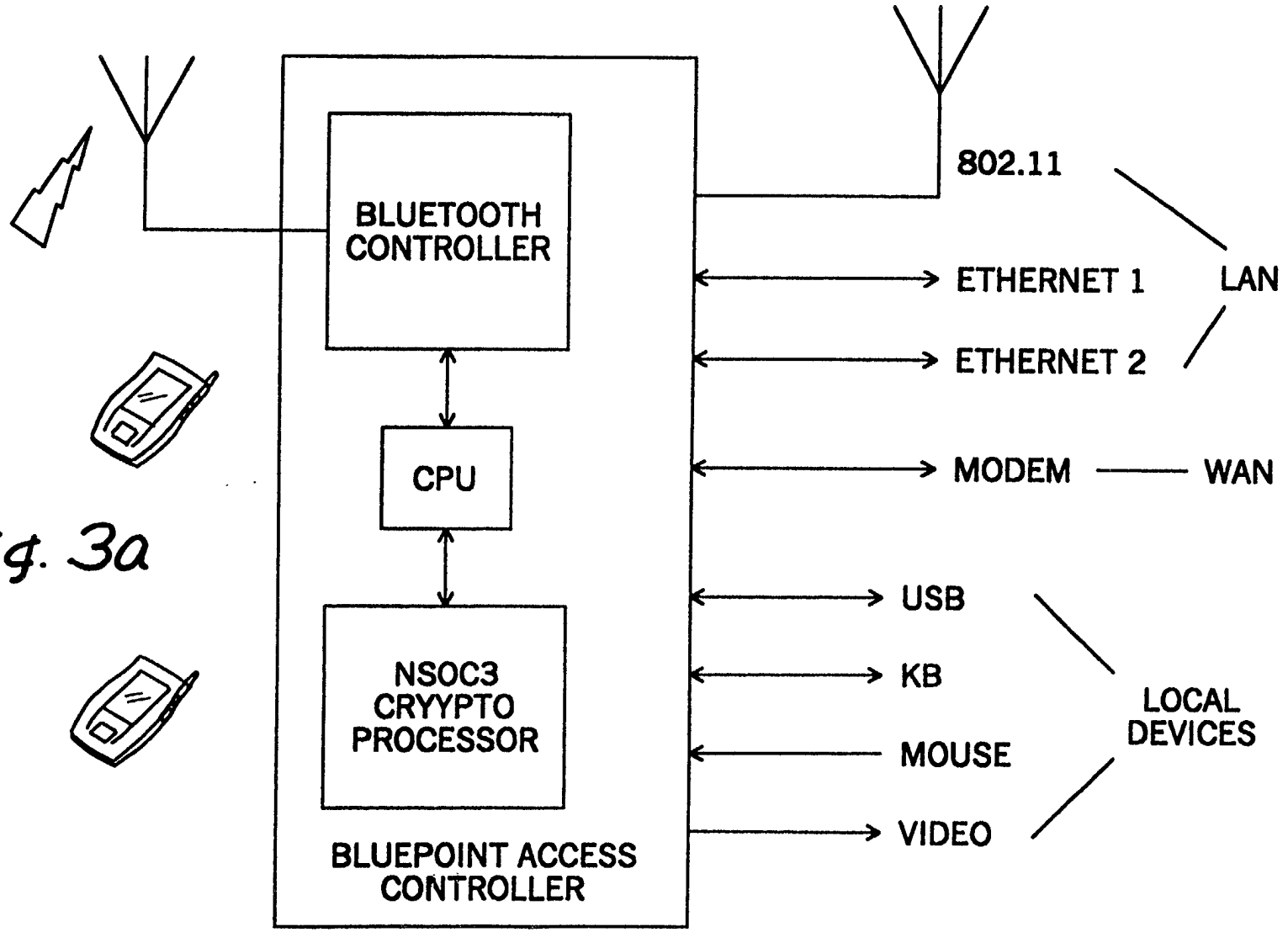

BLUETOOTH CONTROLLER
CPU
NSOC3 CRYYPTO PROCESSOR
BLUEPOINT ACCESS CONTROLLER
802.11
ETHERNET 1
ETHERNET 2
LAN
MODEM
WAN
USB
KB
MOUSE
VIDEO
LOCAL DEVICES

Fig. 3a

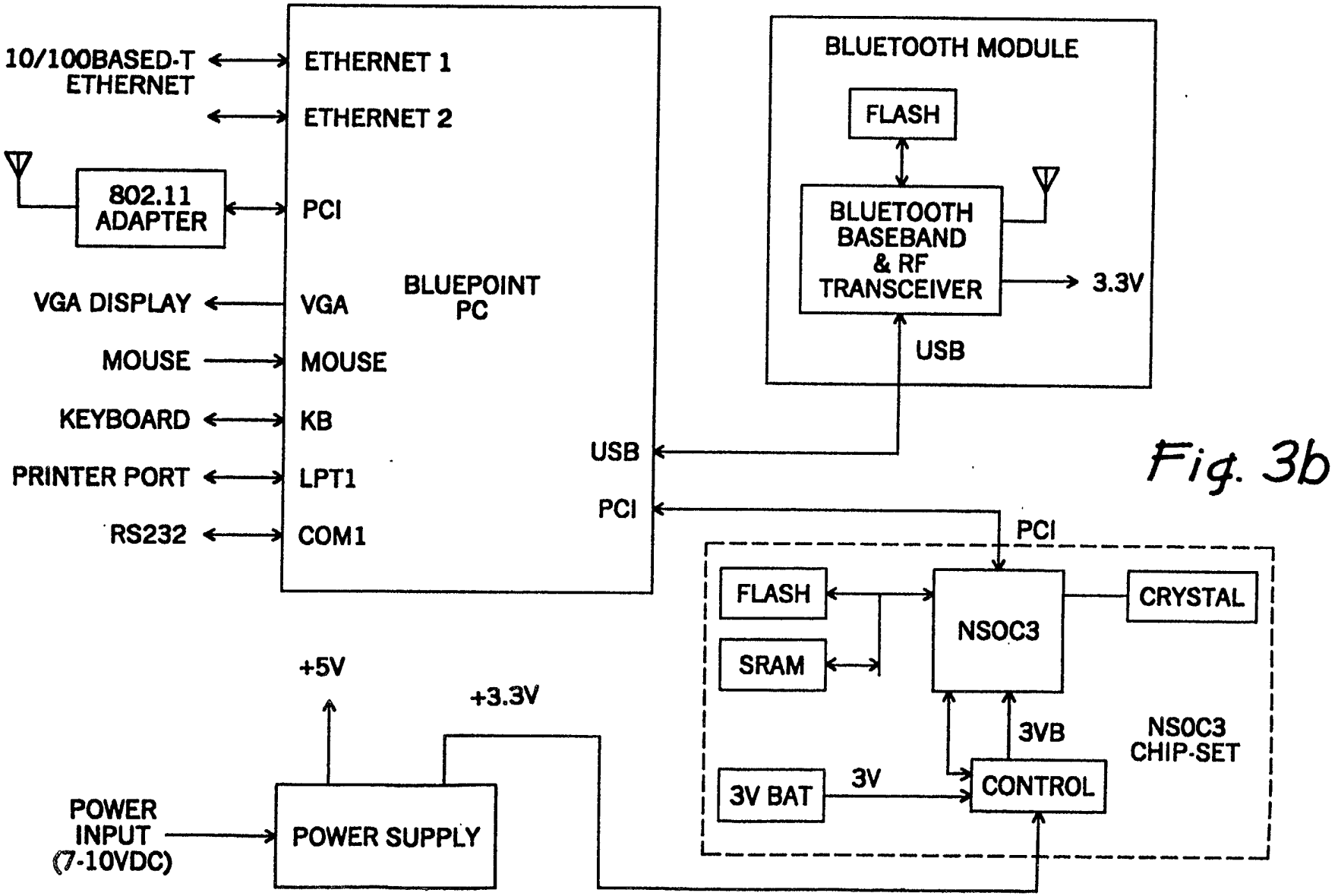

10/100BASED-T ETHERNET
ETHERNET 1
ETHERNET 2
802.11 ADAPTER
PCI
VGA DISPLAY
VGA
BLUEPOINT PC
MOUSE
MOUSE
KEYBOARD
KB
PRINTER PORT
LPT1
RS232
COM1
USB
PCI
BLUETOOTH MODULE
FLASH
BLUETOOTH BASEBAND & RF TRANSCEIVER
3.3V
USB
PCI
FLASH
SRAM
NSOC3
CRYSTAL
3VB
NSOC3 CHIP-SET
3V BAT
3V
CONTROL
+5V
+3.3V
POWER INPUT (7-10VDC)
POWER SUPPLY

Fig. 3b

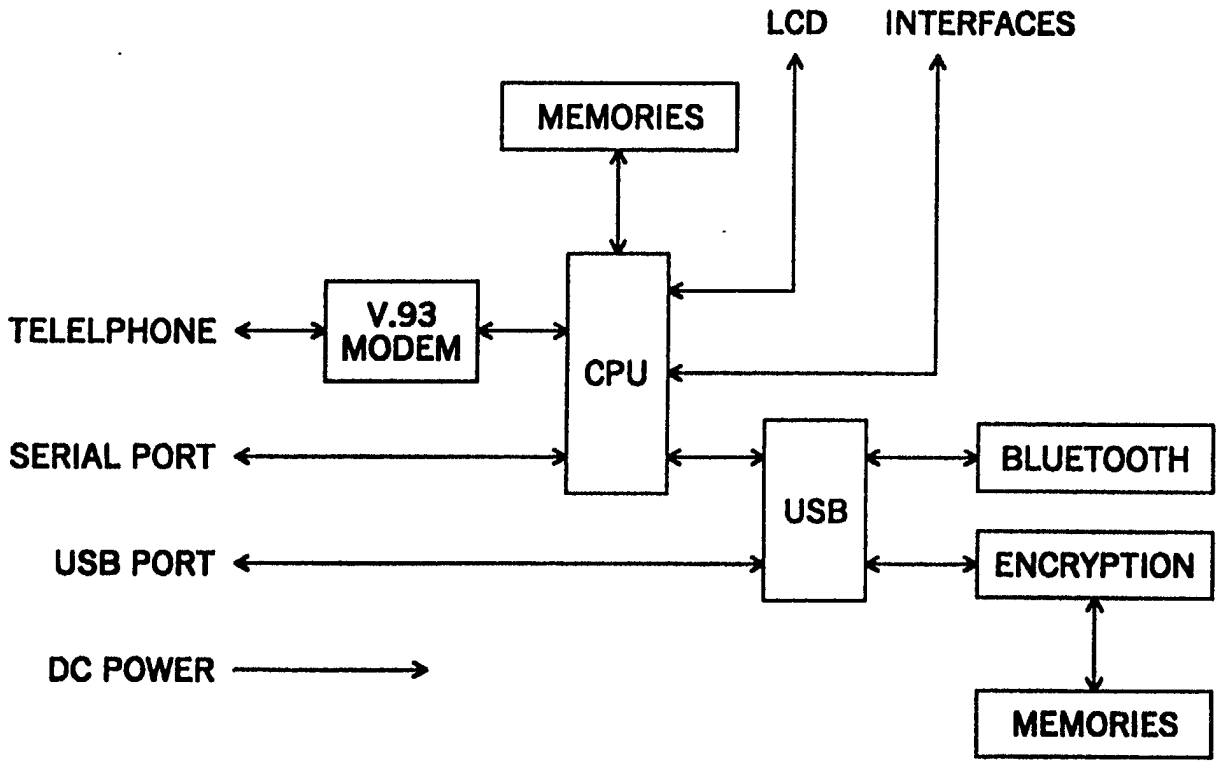

LCD
INTERFACES
MEMORIES
TELELPHONE
V.93 MODEM
CPU
SERIAL PORT
USB
BLUETOOTH
USB PORT
ENCRYPTION
DC POWER
MEMORIES

Fig. 4

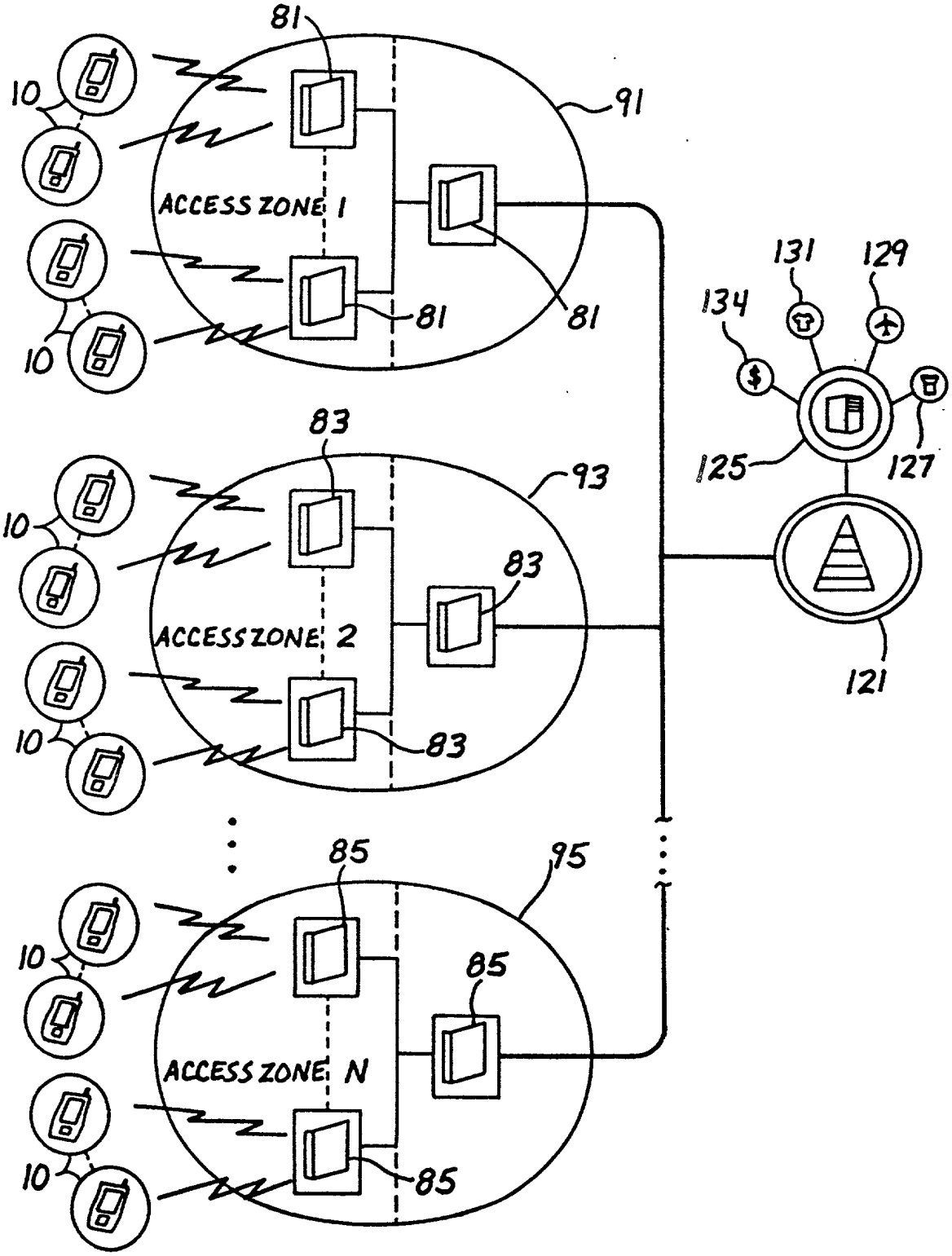

81
10
91
ACCESS ZONE 1
81
81
10
131
129
134
125
127
121
83
93
10
83
ACCESS ZONE 2
83
10
85
95
10
85
ACCESS ZONE N
85
10

Fig. 5

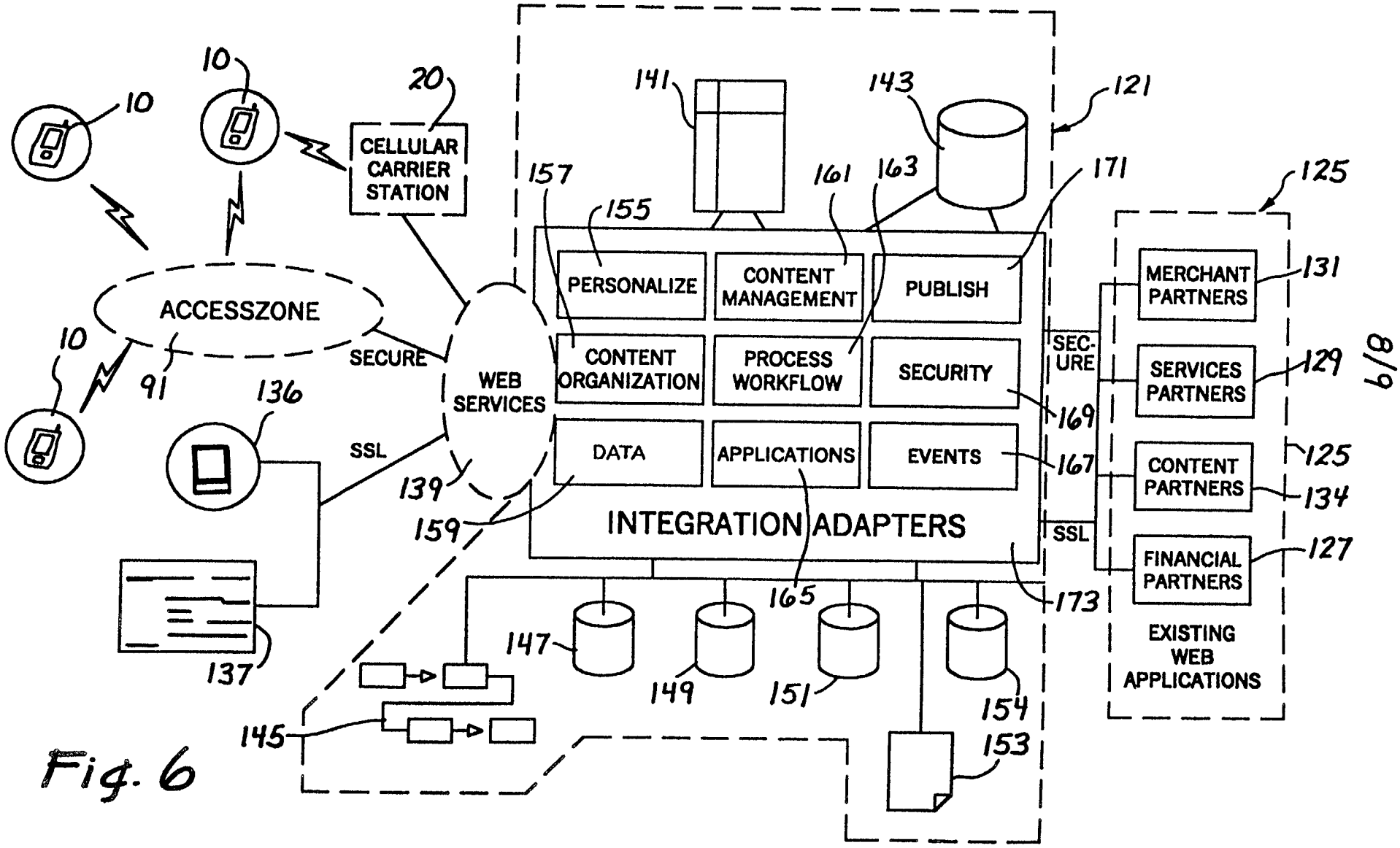
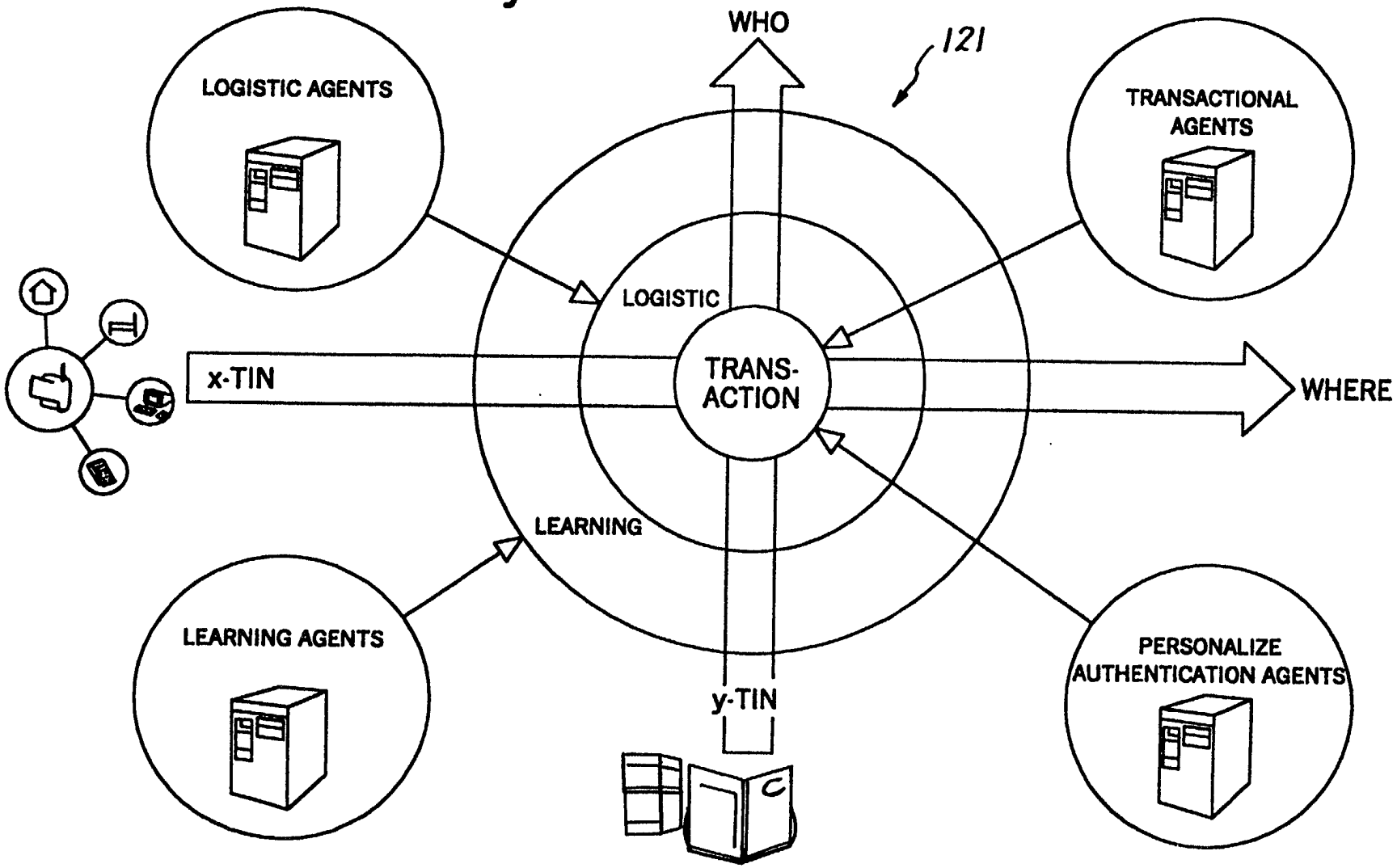
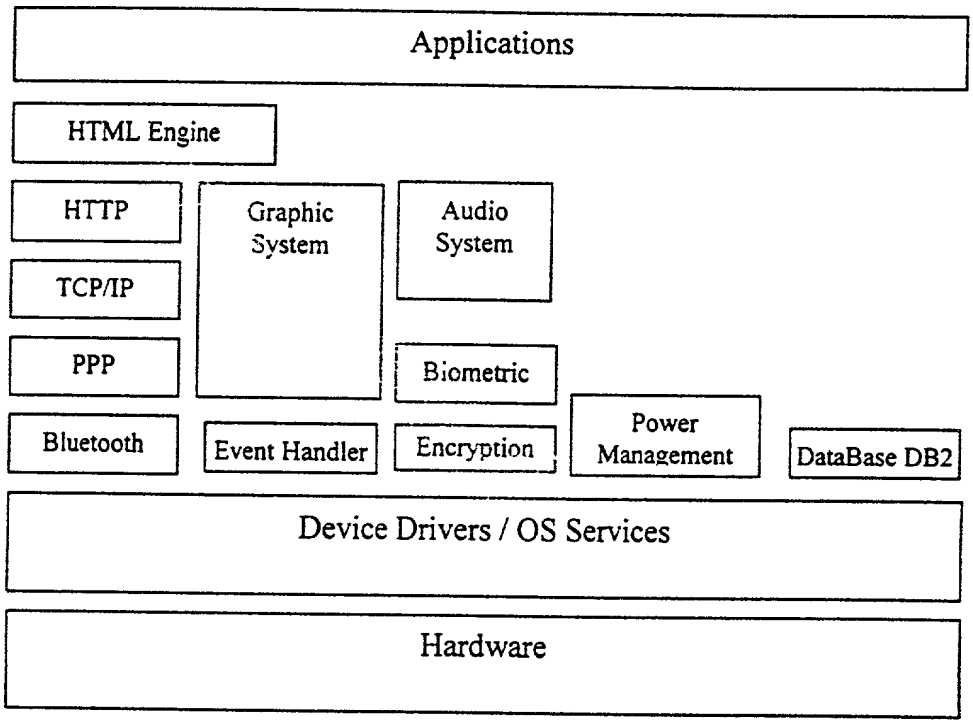

10
10
10
20
CELLULAR CARRIER STATION
ACCESSZONE
SECURE
91
10
136
SSL
137
WEB SERVICES
139
159
141
143
121
157
155
161
163
171
125
PERSONALIZE
CONTENT MANAGEMENT
PUBLISH
CONTENT ORGANIZATION
PROCESS WORKFLOW
SECURITY
DATA
APPLICATIONS
EVENTS
INTEGRATION ADAPTERS
SEC-URE
SSL
169
167
165
173
MERCHANT PARTNERS
SERVICES PARTNERS
CONTENT PARTNERS
FINANCIAL PARTNERS
131
129
125
134
127
EXISTING WEB APPLICATIONS
147
149
151
154
145
153

Fig. 6

Fig. 7

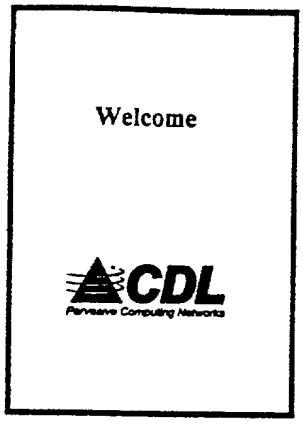

WHO
121
LOGISTIC AGENTS
TRANSACTIONAL AGENTS
LOGISTIC
x-TIN
TRANS-ACTION
WHERE
LEARNING
LEARNING AGENTS
y-TIN
PERSONALIZE AUTHENTICATION AGENTS



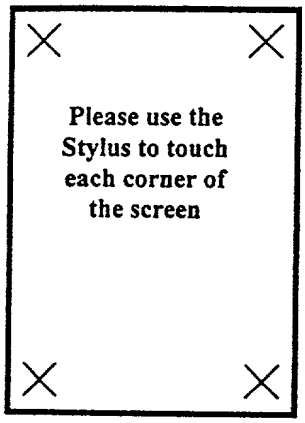
Simplified m-ENGINE™ Software Block Diagram

Fig. 8

Welcome Screen



Calibration



Personalization

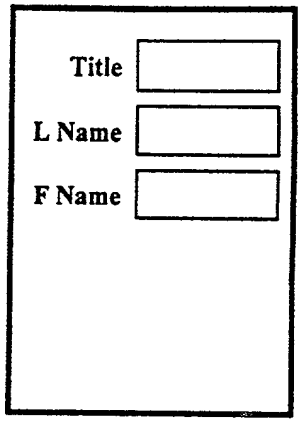
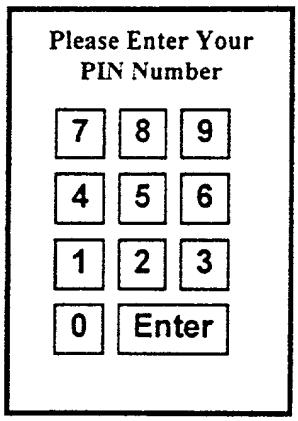


Figure 9



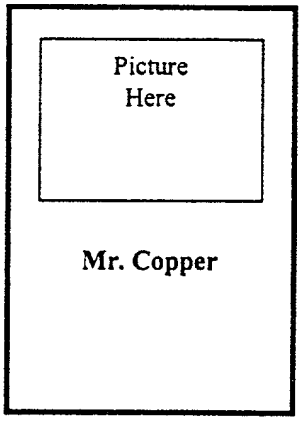
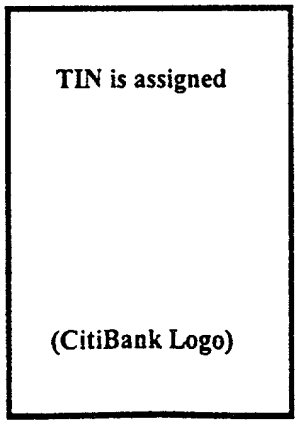


Figure 10



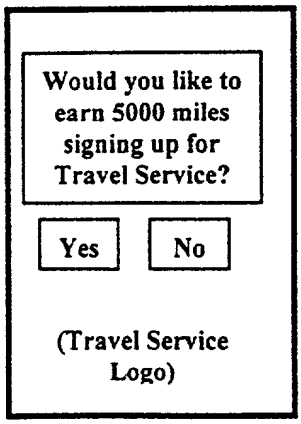


Figure 11

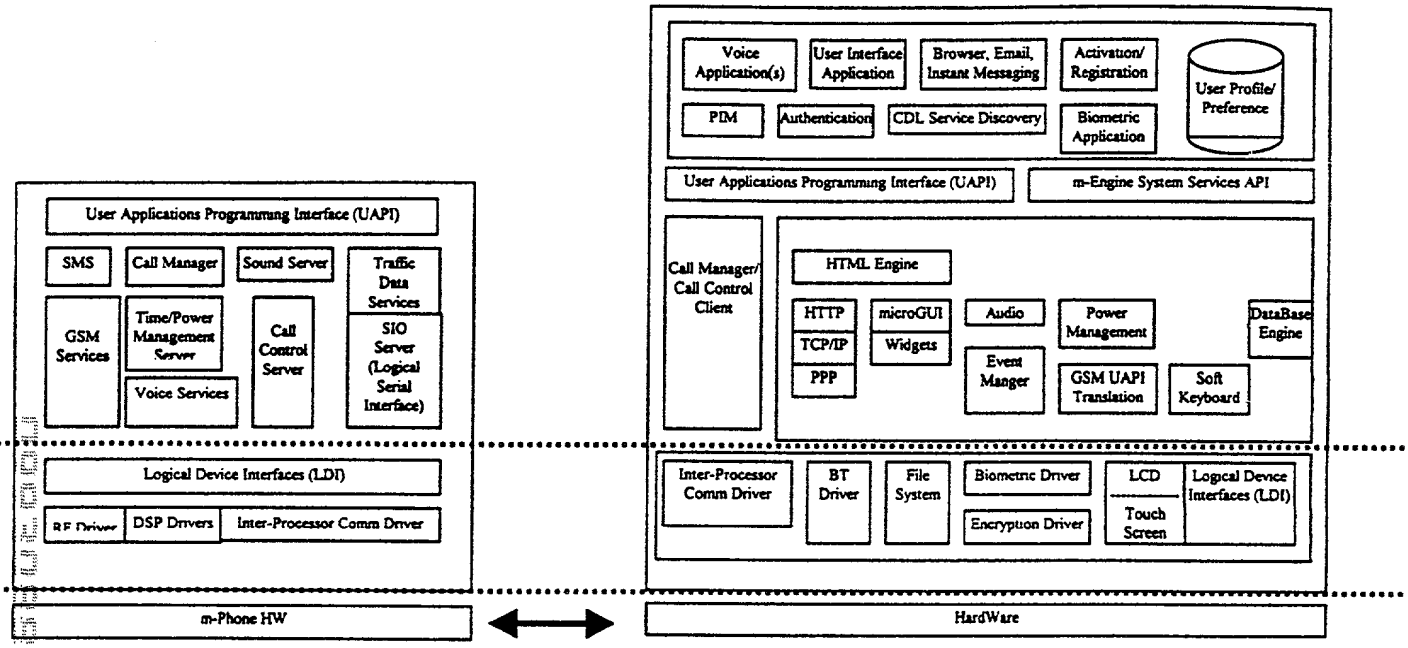
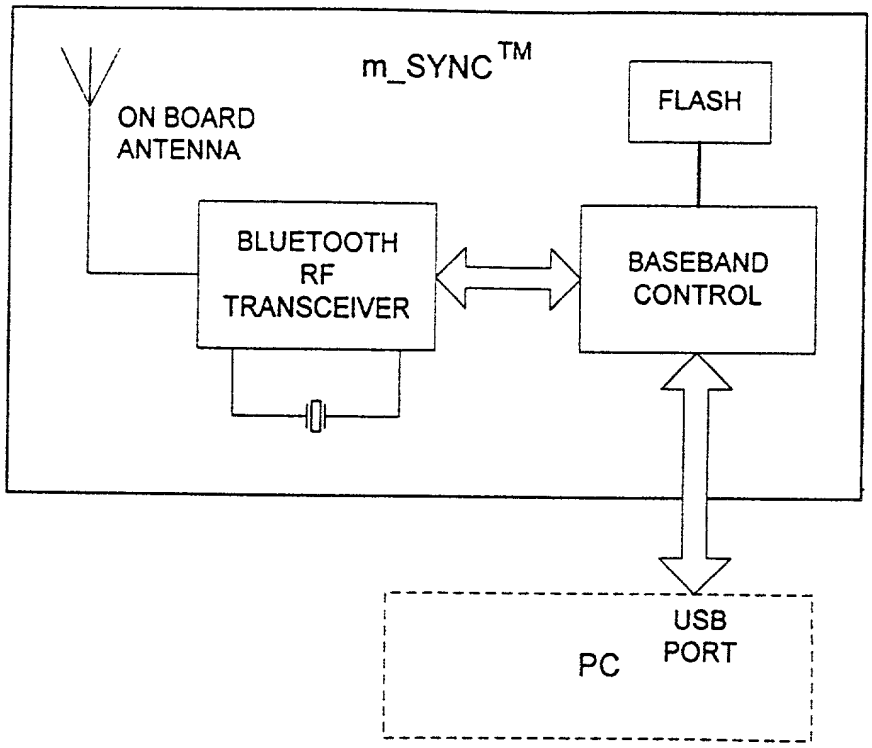
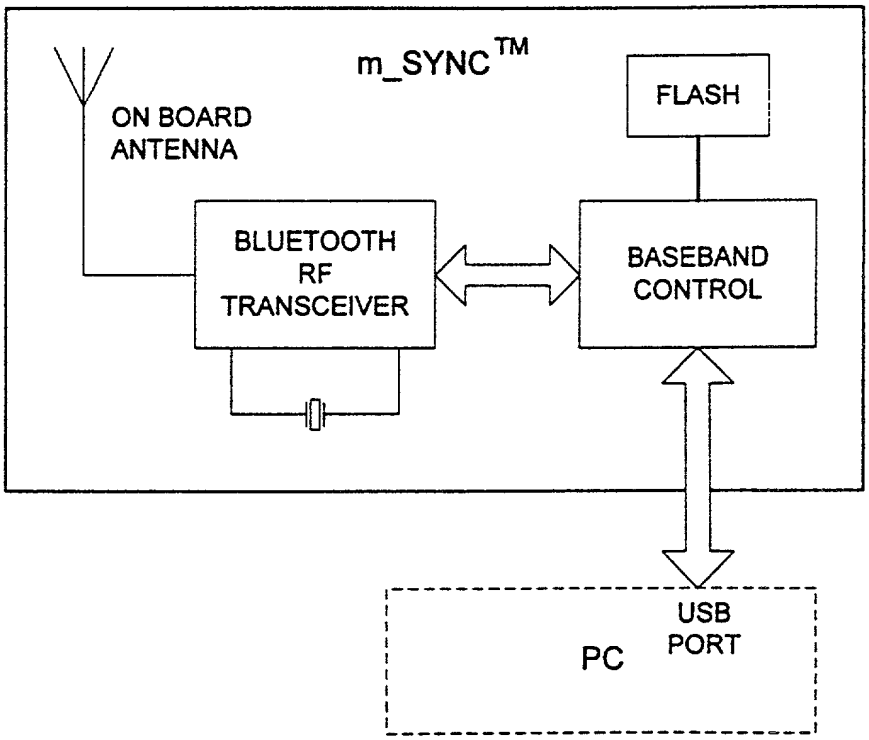

Voice Application(s)
User Interface Application
Browser, Email, Instant Messaging
Activation/ Registration
User Profile/ Preference
PIM
Authentication
CDL Service Discovery
Biometric Application
User Applications Programming Interface (UAPI)
m-Engine System Services API
Call Manager/ Call Control Client
HTML Engine
HTTP
TCP/IP
PPP
microGUI
Widgets
Audio
Power Management
DataBase Engine
Event Manger
GSM UAPI Translation
Soft Keyboard
Inter-Processor Comm Driver
BT Driver
File System
Biometric Driver
Encryption Driver
LCD
Touch Screen
Logical Device Interfaces (LDI)
HardWare
User Applications Programming Interface (UAPI)
SMS
Call Manager
Sound Server
Traffic Data Services
GSM Services
Time/Power Management Server
Voice Services
Call Control Server
SIO Server (Logical Serial Interface)
Logical Device Interfaces (LDI)
RF Drivers
DSP Drivers
Inter-Processor Comm Driver
m-Phone HW

Fig. 12



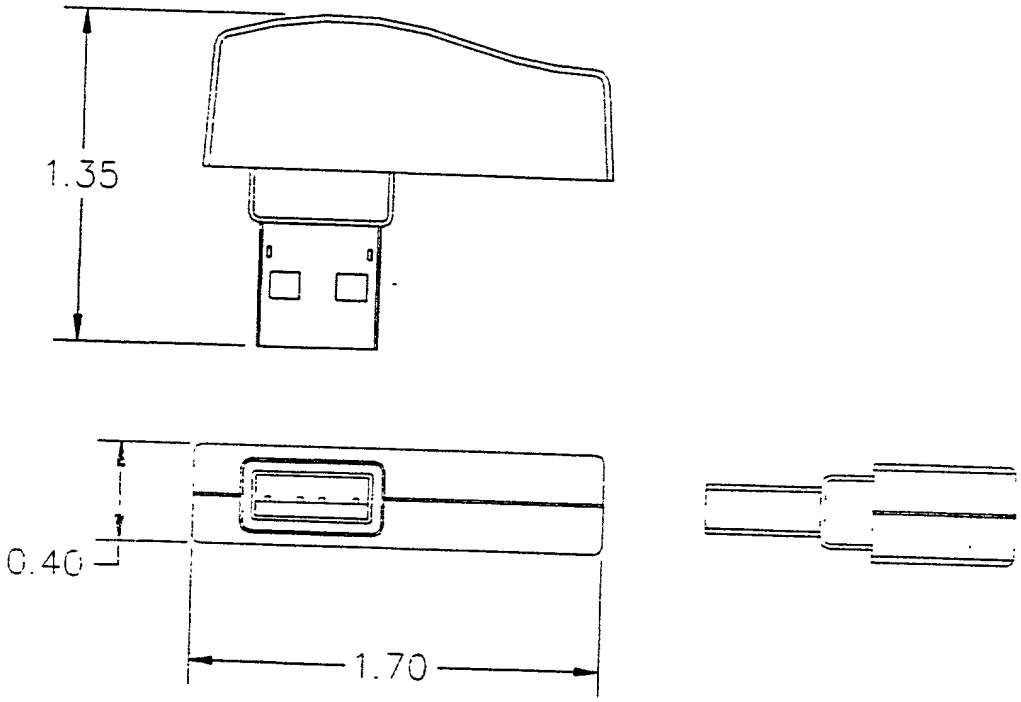
Simplified m-SYNC™ System Block Diagram.

Fig. 13



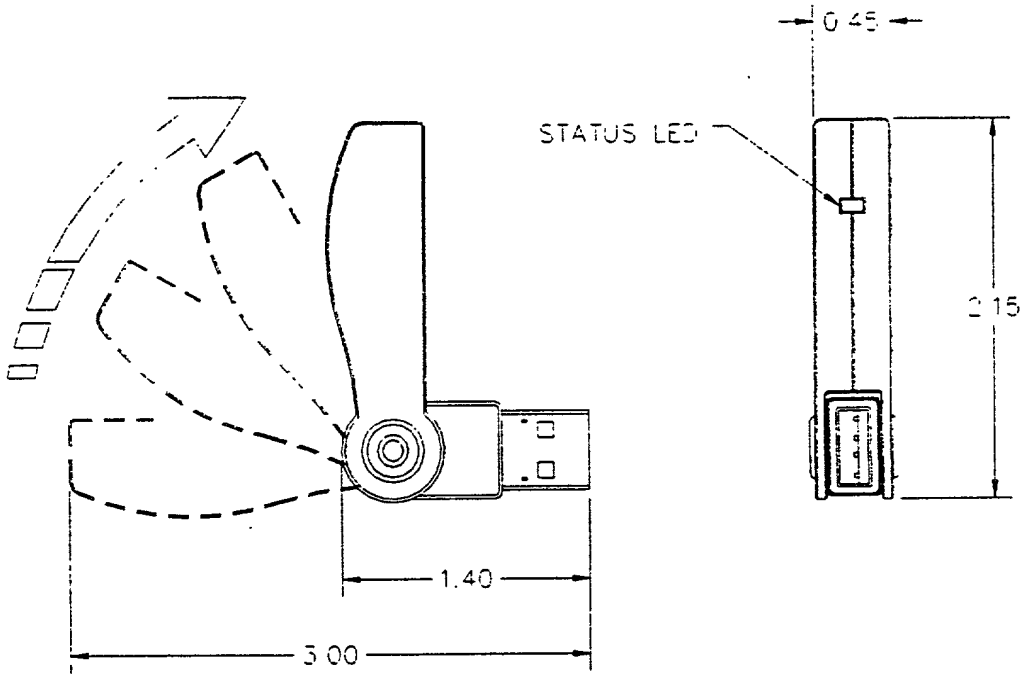
Simplified m-SYNC™ System Block Diagram.

Fig 14



m-SYNC™ I External Dimension and Packaging

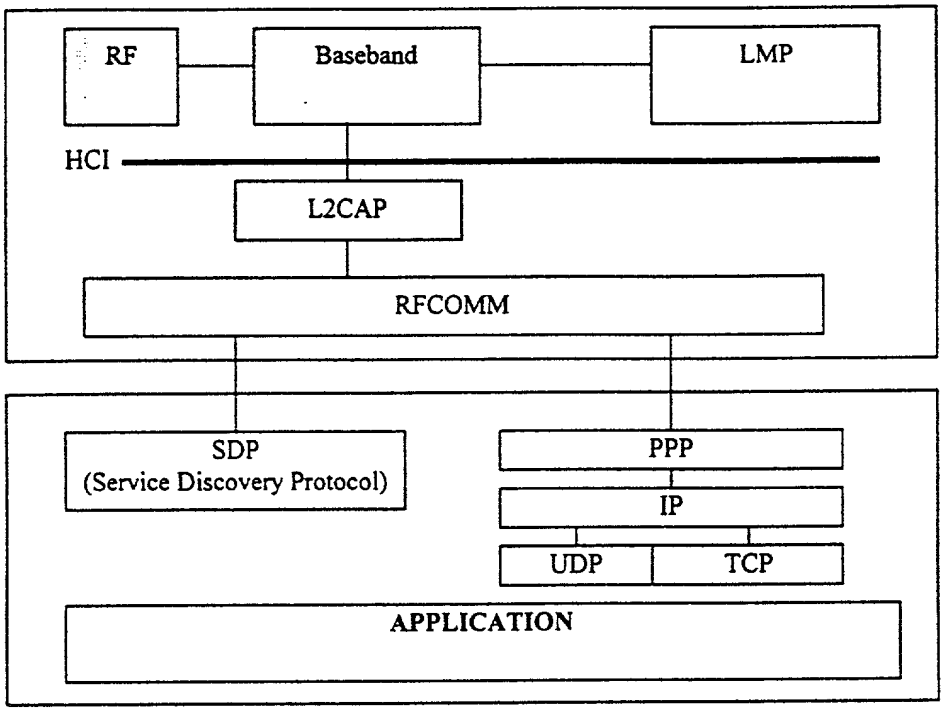
Fig. 15



m-SYNC™ II External Dimension and Packaging

Fig. 16

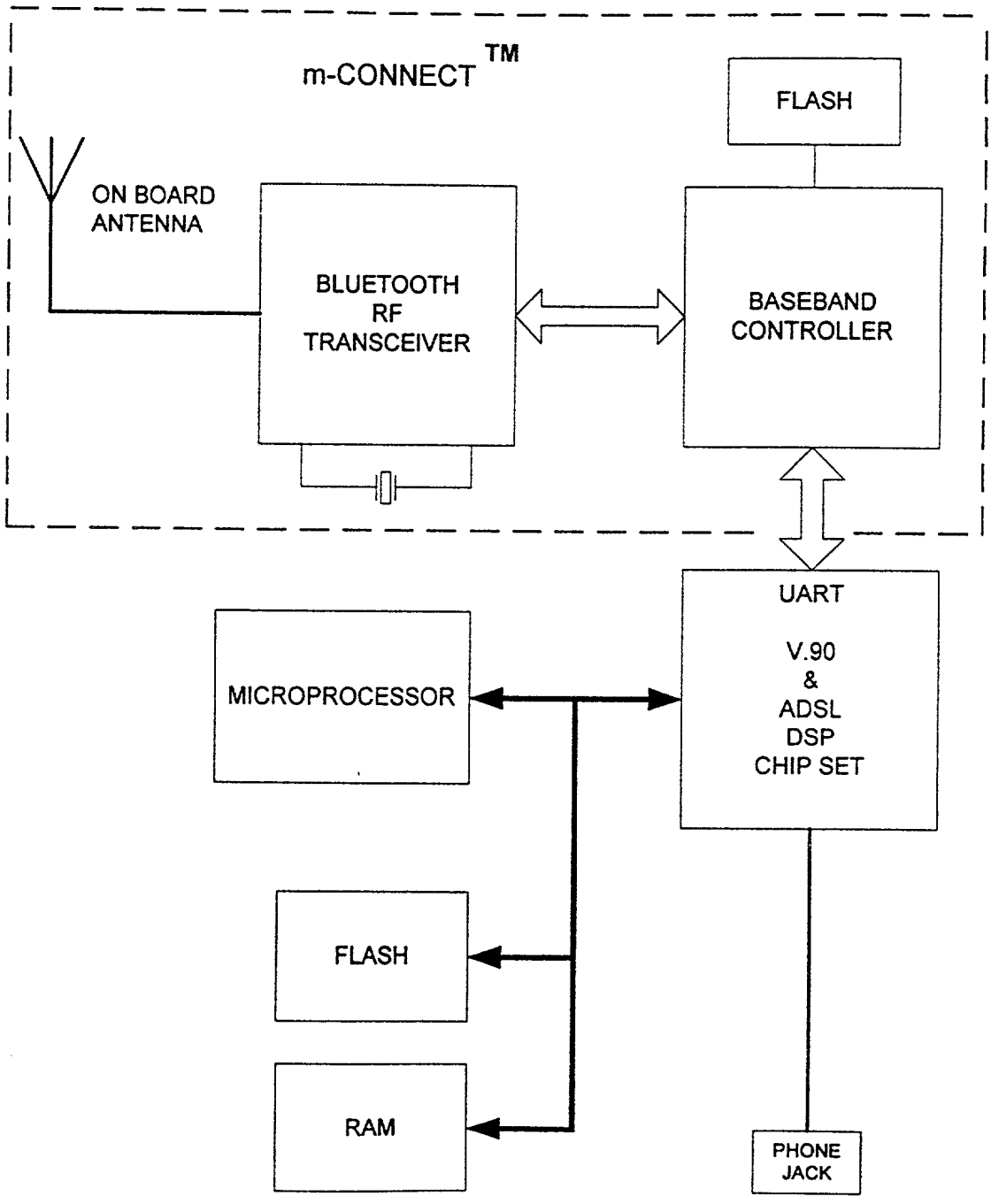
Bluetooth software/firmware block



m-SYNC™

PC

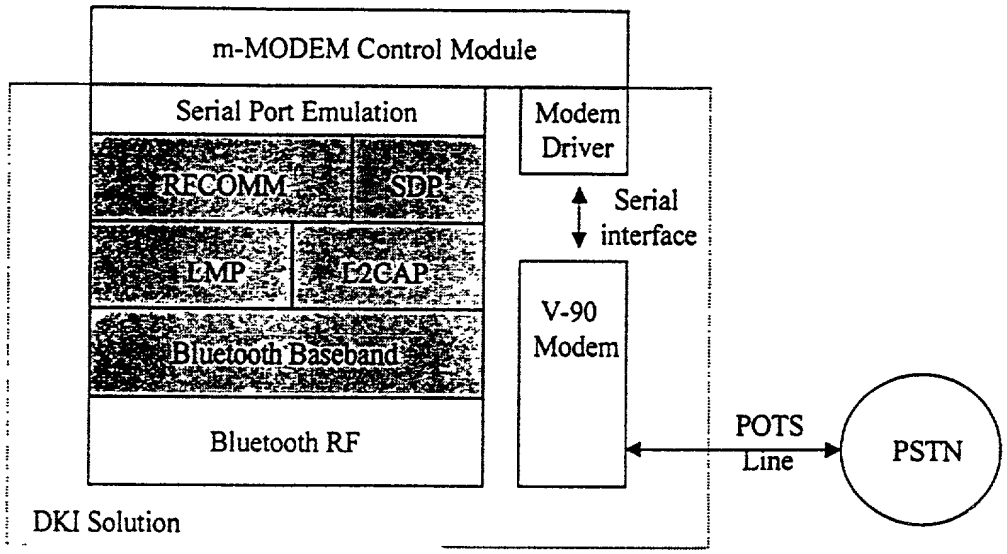
Fig. 17



Simplified m-MODEM™ System Block Diagram.

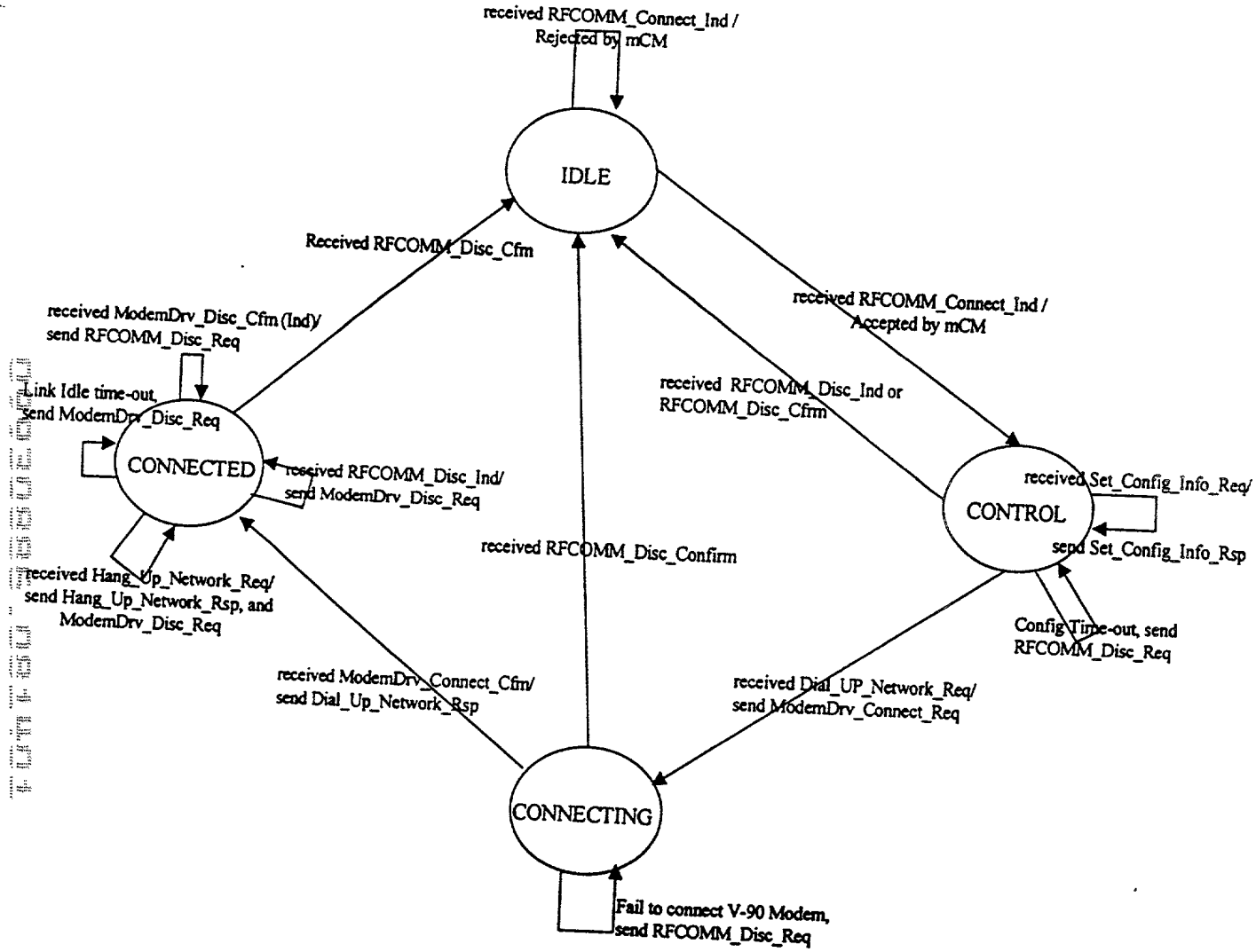
Fig. 18

m-MODEM



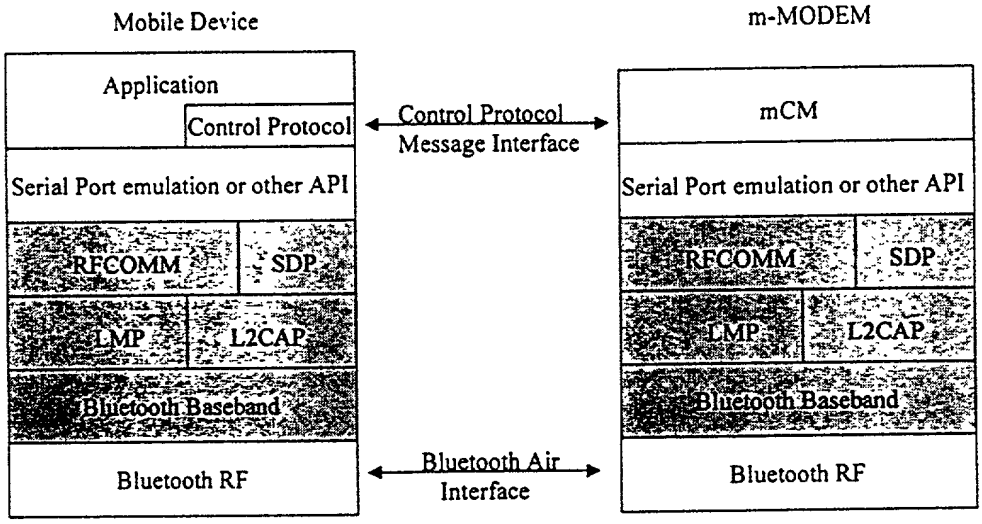
Note: 1. Shaded area indicates the Bluetooth Serial Port Profile stack.
2. Area enclosed in the dotted line indicates the solution provided by DKI.

Fig. 19



mCM State Transition Diagram

Fig. 20



mCM and Mobile Device Control Protocol interface

Fig. 21